

UDL: Universal Design for Learning

Technology

+



Research and Media Skills Blended into the Standards as

To be ready for college, workforce training, and life in a technological society, students need the ability to gather, comprehend, evaluate, synthesize, and report on information and ideas, to conduct original research in order to answer questions or solve problems, and to **analyze and create a high volume and extensive range of print and non-print texts in media forms old and new.** The need to conduct research and to produce and consume media is embedded into every aspect of today's curriculum. In like fashion, research and media skills and understandings are embedded throughout the Standards rather than treated in a separate section.

A Significant Challenge

Students with disabilities — students eligible under the Individuals with Disabilities Education Act (IDEA) — **must be challenged to excel within the general curriculum and be prepared for success in their post-school lives**, including college and/or careers. These common standards provide an historic opportunity **to improve access to rigorous academic content standards for students with disabilities.**

<http://www.corestandards.org/assets/application-to-students-with-disabilities.pdf>

WHAT IS UDL?

Universal Design for
Learning: A philosophy of
curriculum design



Definition . . .

- “A universally designed curriculum is designed from the outset to meet the needs of the greatest number of users, making costly, time-consuming, and after-the-fact changes to curriculum unnecessary.”
CAST, 2008

UDL In the News:



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Universal Design for Learning: The next big thing in school reform?

A new report suggests most states are already implementing UDL without a federal mandate



By Meris Stansbury, Online Editor

Read more by [Meris Stansbury](#)

As educators brace for new reforms, what will these changes look like? How will assessments and curriculum differ from previous versions? How can all students get the best education possible? The answer, some experts believe, lies partially in Universal Design for Learning (UDL)—a framework that's quickly gaining momentum across the U.S. ... [Read more with registration.](#)

**NATIONAL CENTER ON
UNIVERSAL DESIGN for LEARNING**

About UDL
LEARN THE BASICS

Advocacy
CALL FOR CHANGE

Implementation
BE THE CHANGE

Research
KNOW THE FACTS

Advocacy

Report - UDL: Initiatives on the Move

On May 15, 2012, the webinar, *Universal Design for Learning: Growing Momentum in States and Districts*, offered new insights about how Universal Design for Learning (UDL) is emerging as a national innovation that is transforming curriculum and instruction for all learners.

Here's what you'll learn: UDL expert, **Dr. David Rose**, describes the UDL framework, followed by highlights from co-author **Dr. Patti Ralabate** on the findings of *Universal Design for Learning: Initiatives on the Move*, the first

UDL Initiatives:



UDL is showing up in documents, such as:

- The National Education Tech Plan, 2010
- ARRA Applications
- RTTT Applications
- Common Core
- Upcoming Reauthorization of IDEA
- Upcoming Reauthorization of ESEA

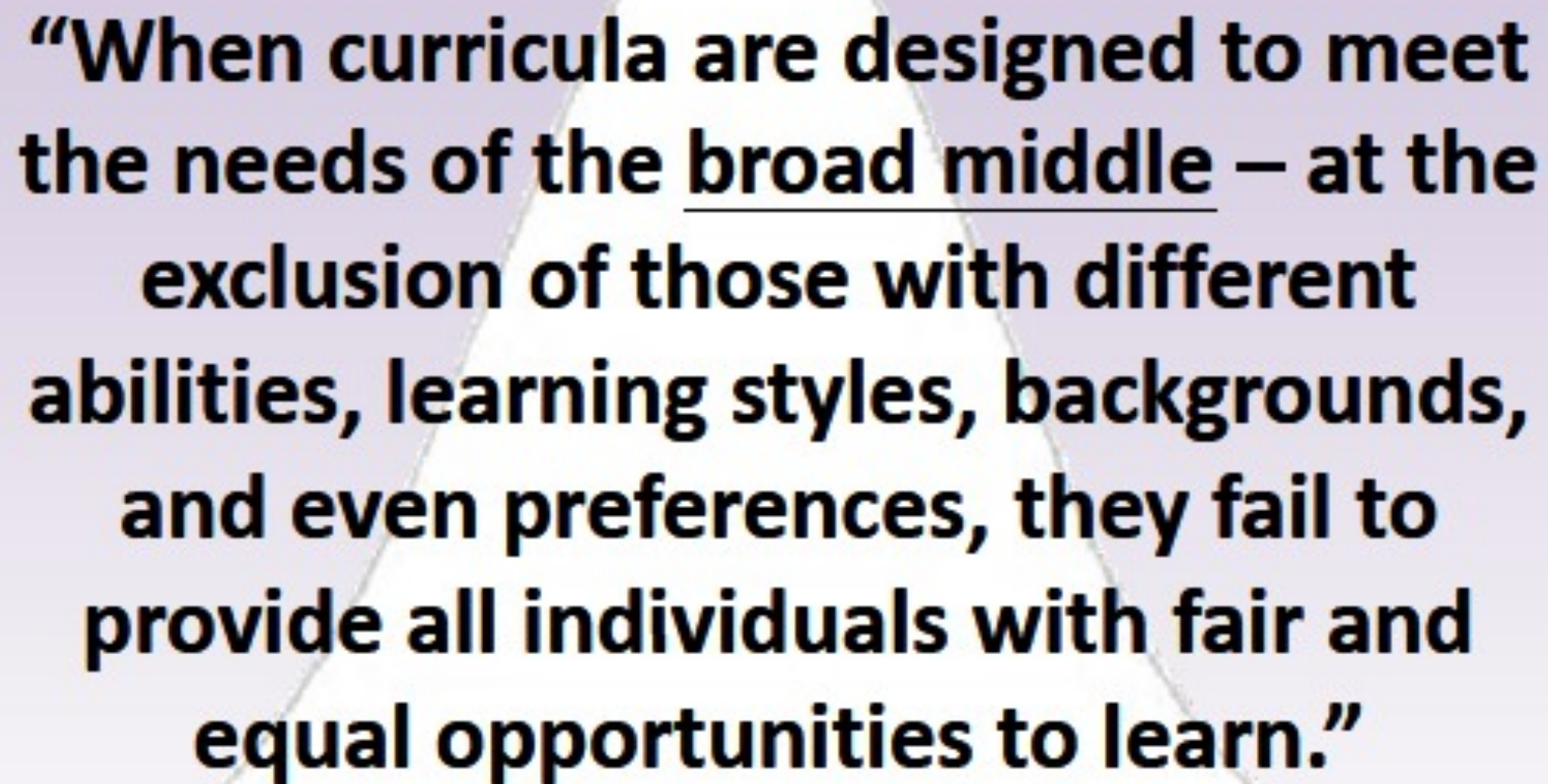
“Universal Design for Learning (UDL): Initiatives on the Move,”
National Center on Universal Design for Learning, May 2012

UDL is...

a philosophical shift in thinking about teaching and learning – about curriculum design.

UDL is not...

- a Special Education Initiative
- Differentiated Instruction*
- Assistive Technology*



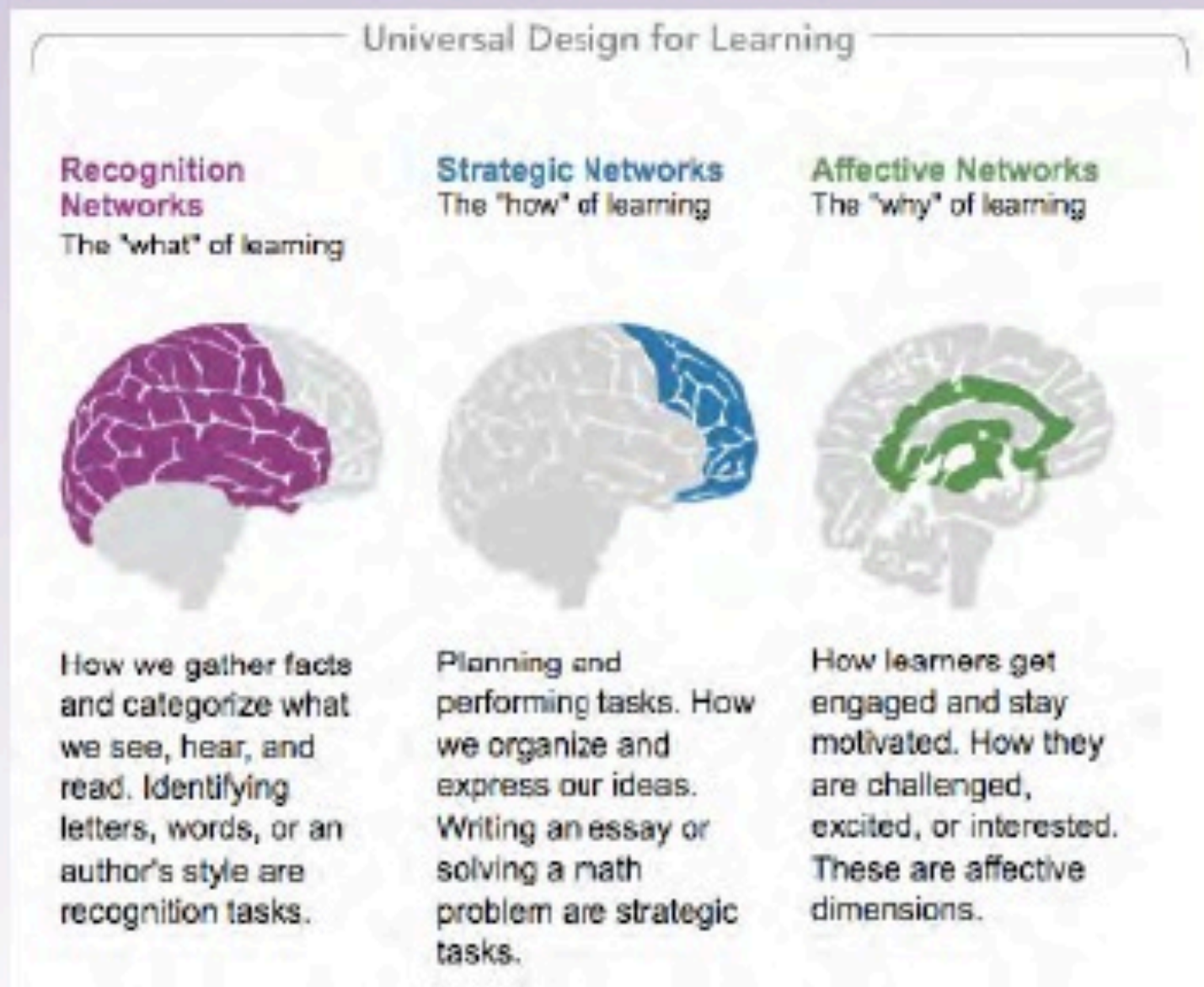
“When curricula are designed to meet the needs of the broad middle – at the exclusion of those with different abilities, learning styles, backgrounds, and even preferences, they fail to provide all individuals with fair and equal opportunities to learn.”

CAST, 2008

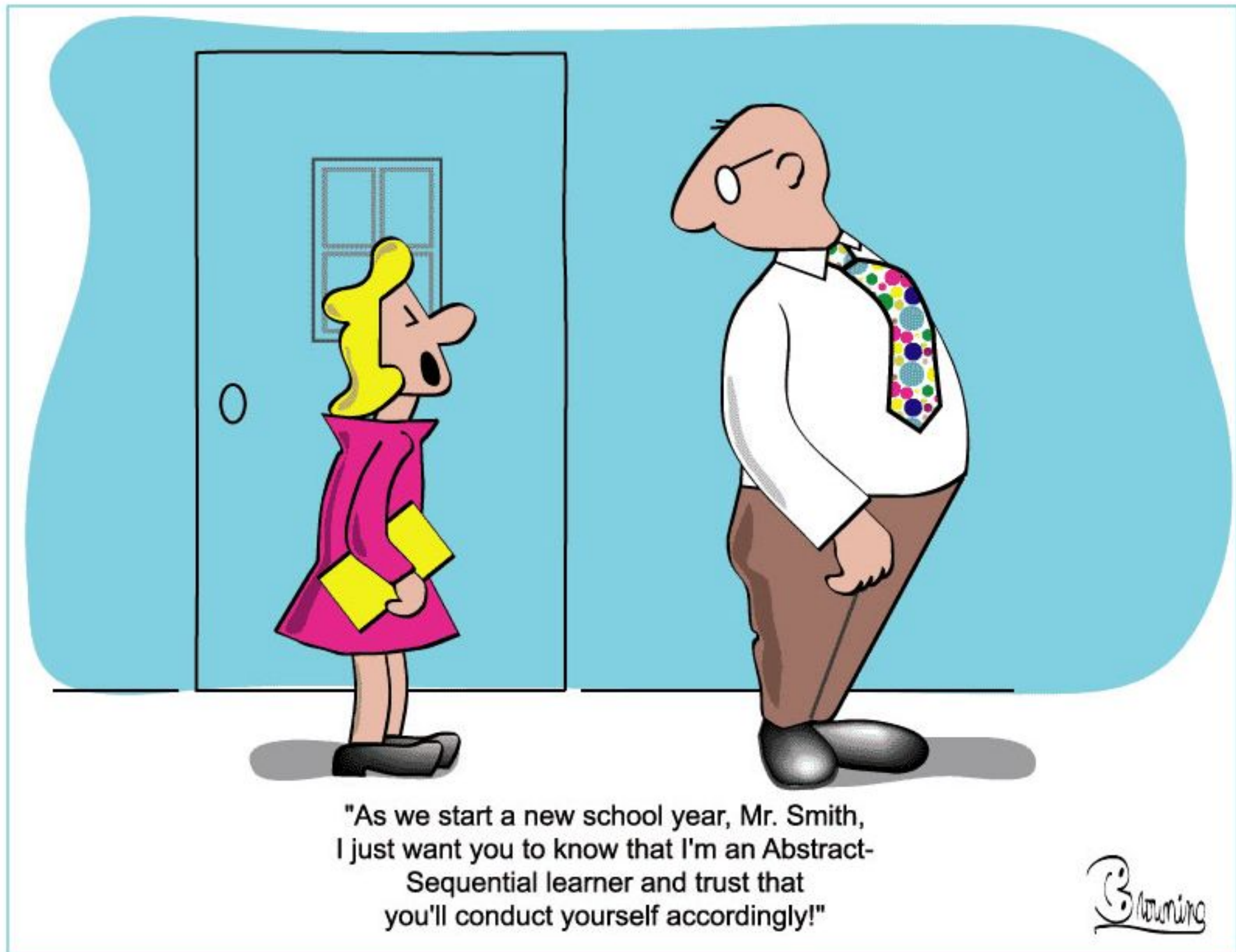
One Size Doesn't Fit All!



Neuroscience – We all learn differently



<http://www.cast.org>



Principles of UDL

Multiple Means of Representation

- Present information and content in different ways

Multiple Means of Expression or Action

- Differentiate the ways that students can express what they know

Multiple Means of Engagement

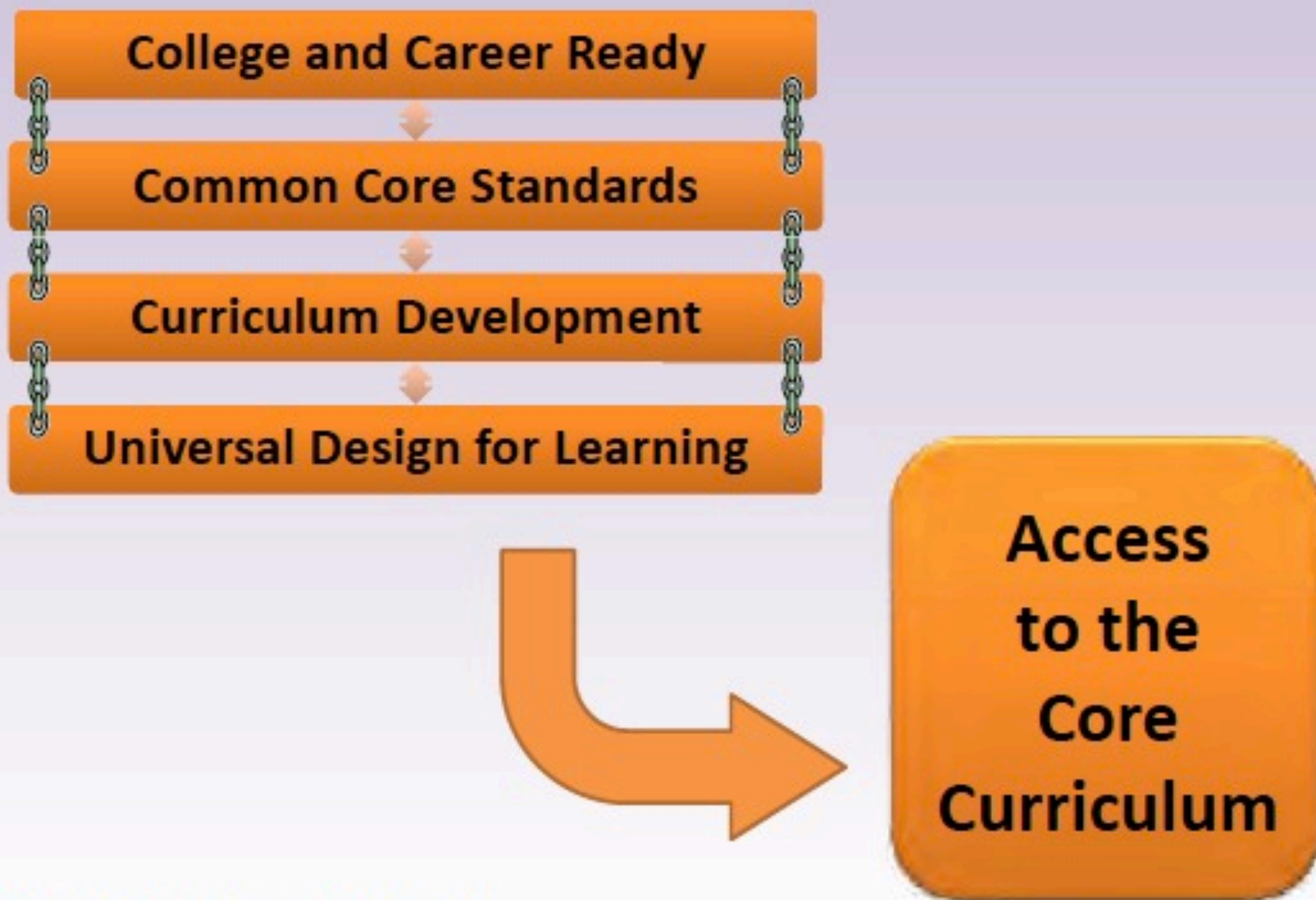
- Stimulate interest and motivation for learning

<http://cast.org/udl/index.html>

UDL Impacts Curricula



Initiatives, Relationships, and the Role of Technology



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Universal Design for Learning

Recognition Networks

The "what" of learning



How we gather facts and categorize what we see, hear, and read. Identifying letters, words, or an author's style are recognition tasks.



Present information and content in different ways

**More ways to provide
Multiple Means of
Representation**

Strategic Networks

The "how" of learning



Planning and performing tasks. How we organize and express our ideas. Writing an essay or solving a math problem are strategic tasks.



Differentiate the ways that students can express what they know

**More ways to provide
Multiple Means of Action and
Expression**

Affective Networks

The "why" of learning



How learners get engaged and stay motivated. How they are challenged, excited, or interested. These are affective dimensions.



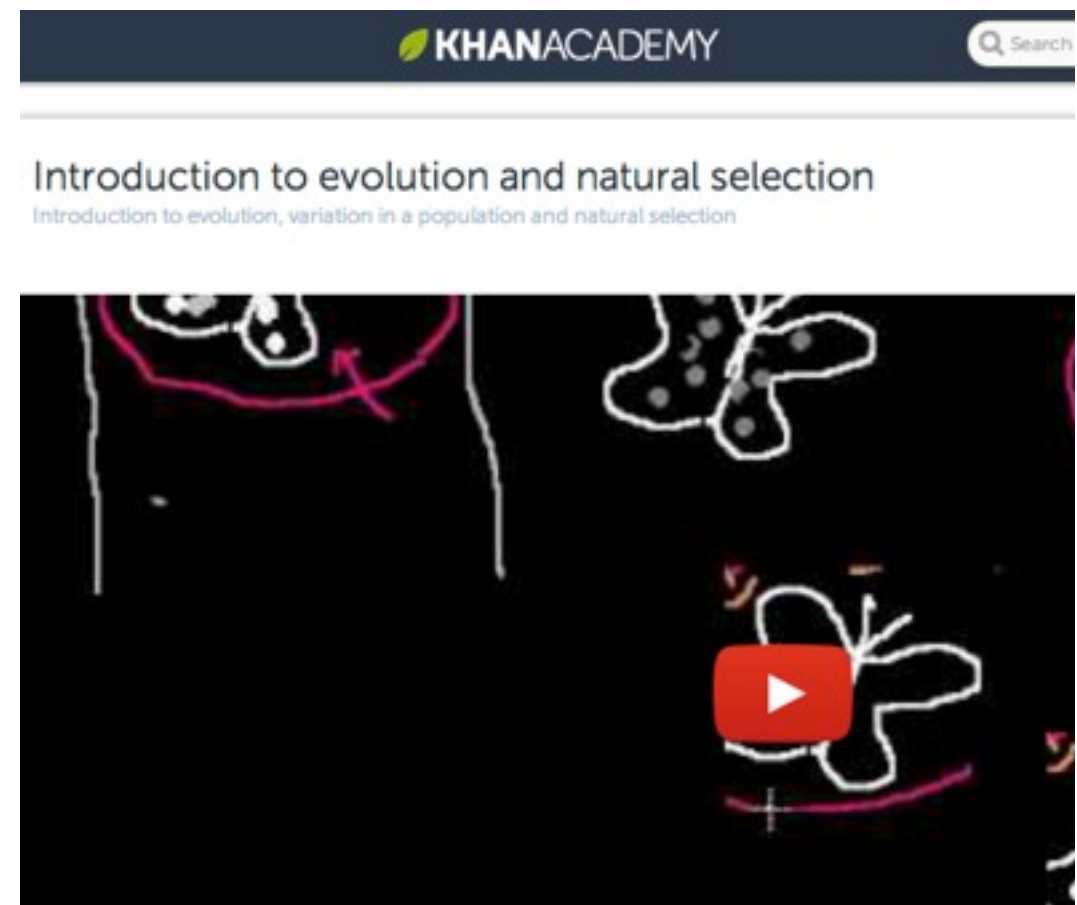
Stimulate interest and motivation for learning

**More ways to provide
Multiple Means of
Engagement**

Representation

Kahn Academy

- 700 micro lessons
- math, history, healthcare, medicine, finance, physics, chemistry, biology, astronomy, economics, cosmology, organic chemistry, American civics, art history, macroeconomics, microeconomics, and computer science



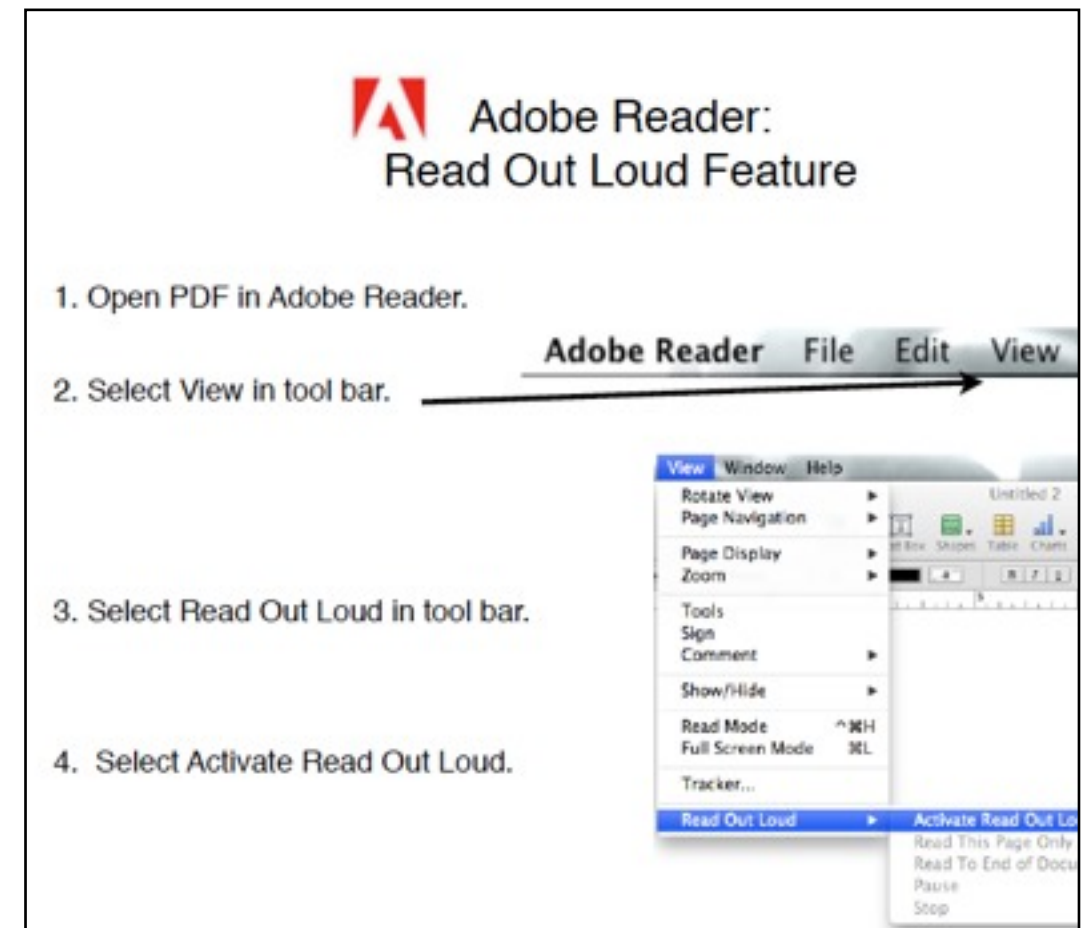
Gooru.org

- A free search engine

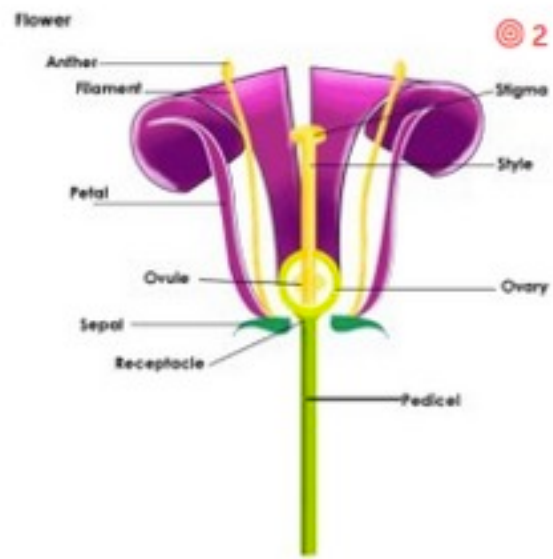
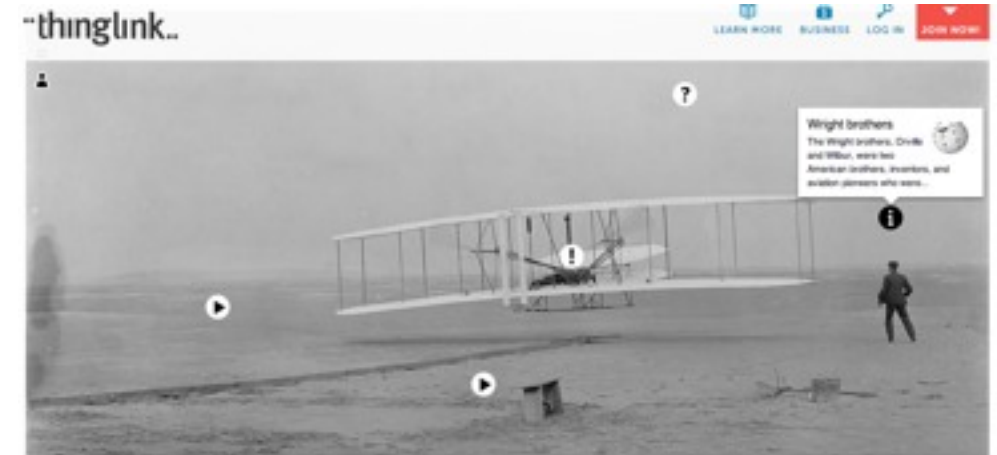


Adobe PDF Reader

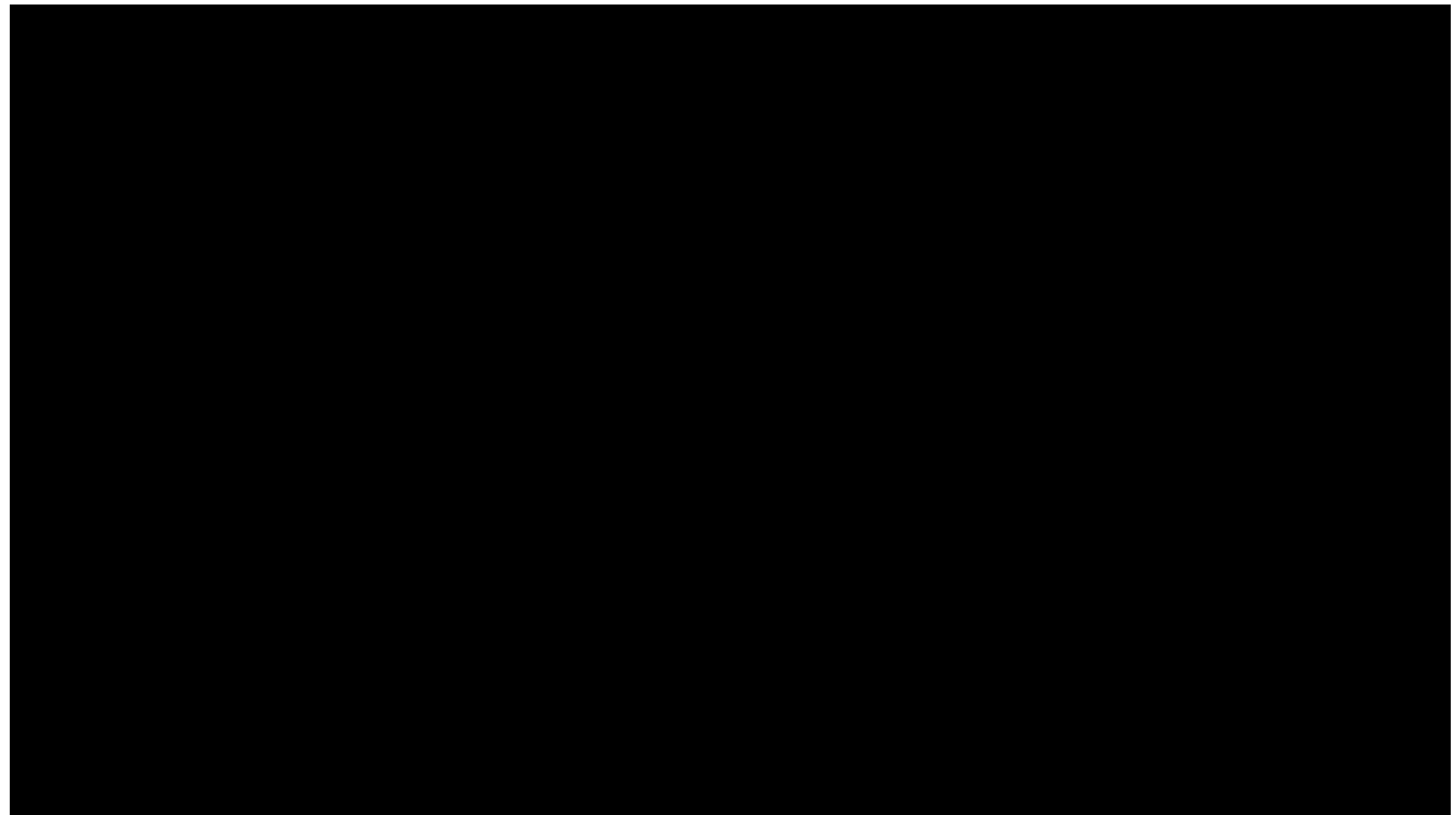
- Reads unlocked PDFs out loud



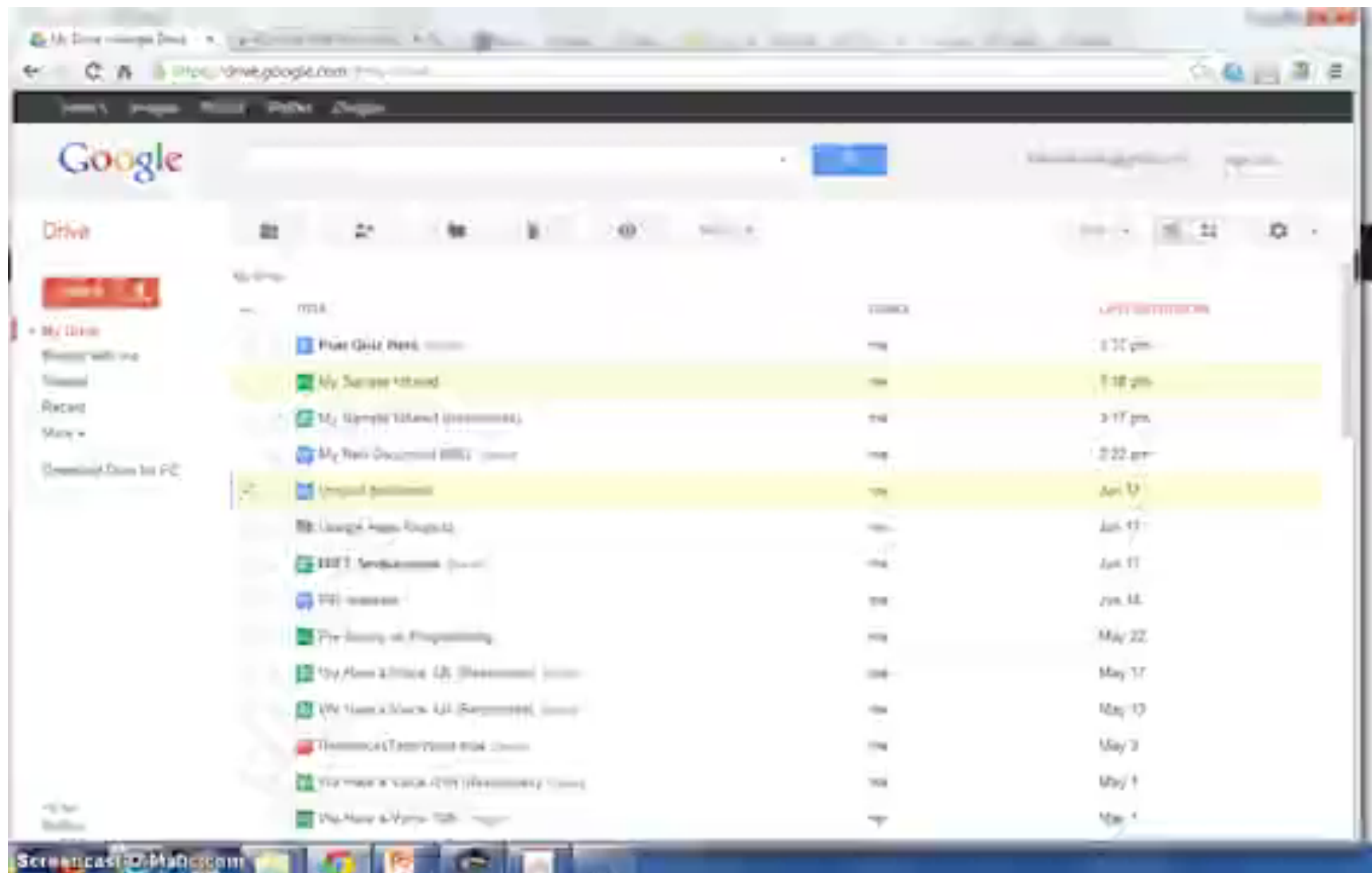
Thinglink.com



Flower Parts

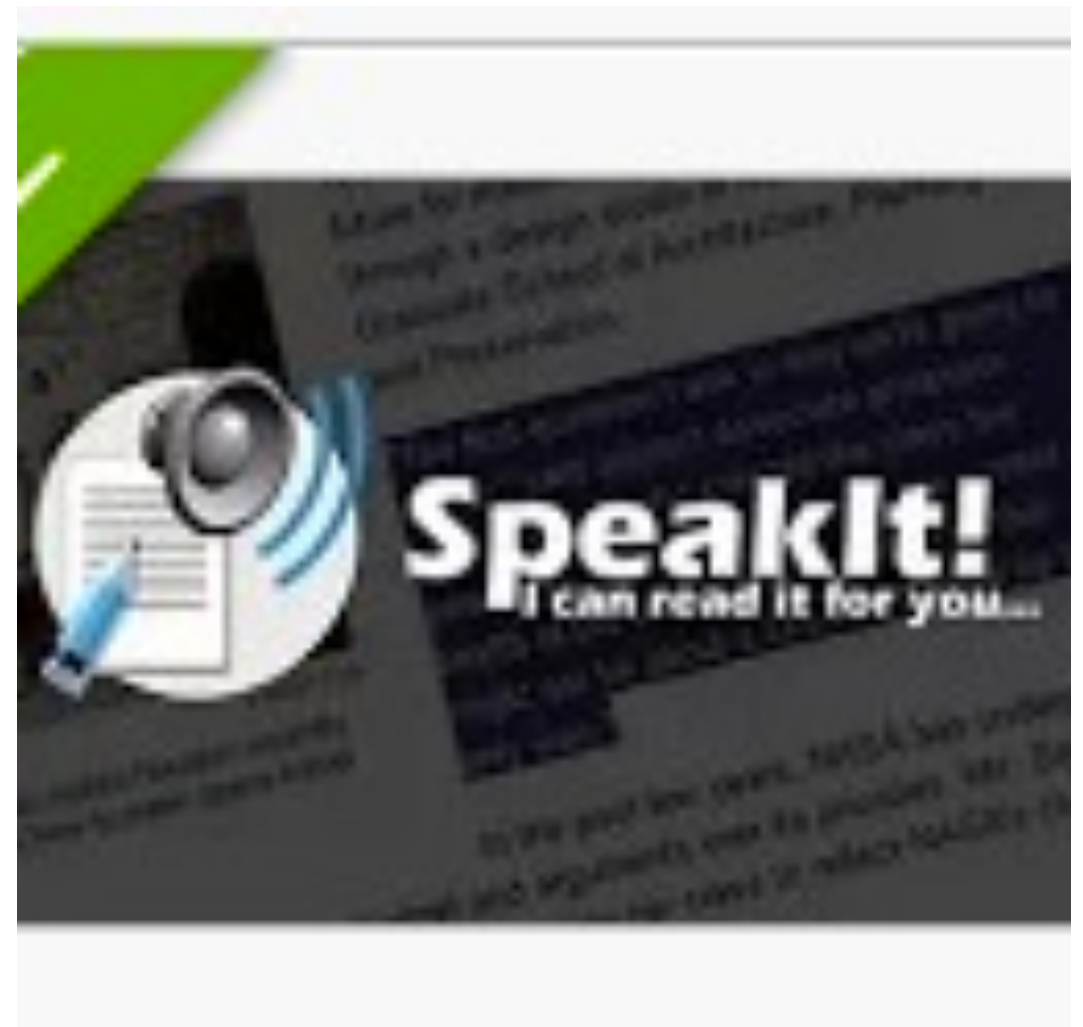


Read and Write for Google (30 day trial ...)



Google Chrome SpeakIt!

- Chrome Web Store
- SpeakIt! Will read any highlighted text open in Chrome



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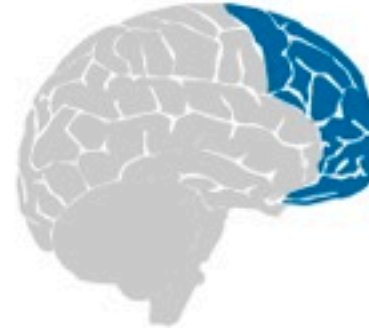


Present information and content in different ways

**More ways to provide
Multiple Means of
Representation**

Strategic Networks

The "how" of learning



Planning and performing tasks. How we organize and express our ideas. Writing an essay or solving a math problem are strategic tasks.



Differentiate the ways that students can express what they know

**More ways to provide
Multiple Means of Action and
Expression**

Affective Networks

The "why" of learning



How learners get engaged and stay motivated. How they are challenged, excited, or interested. These are affective dimensions.



Stimulate interest and motivation for learning

**More ways to provide
Multiple Means of
Engagement**

Expression

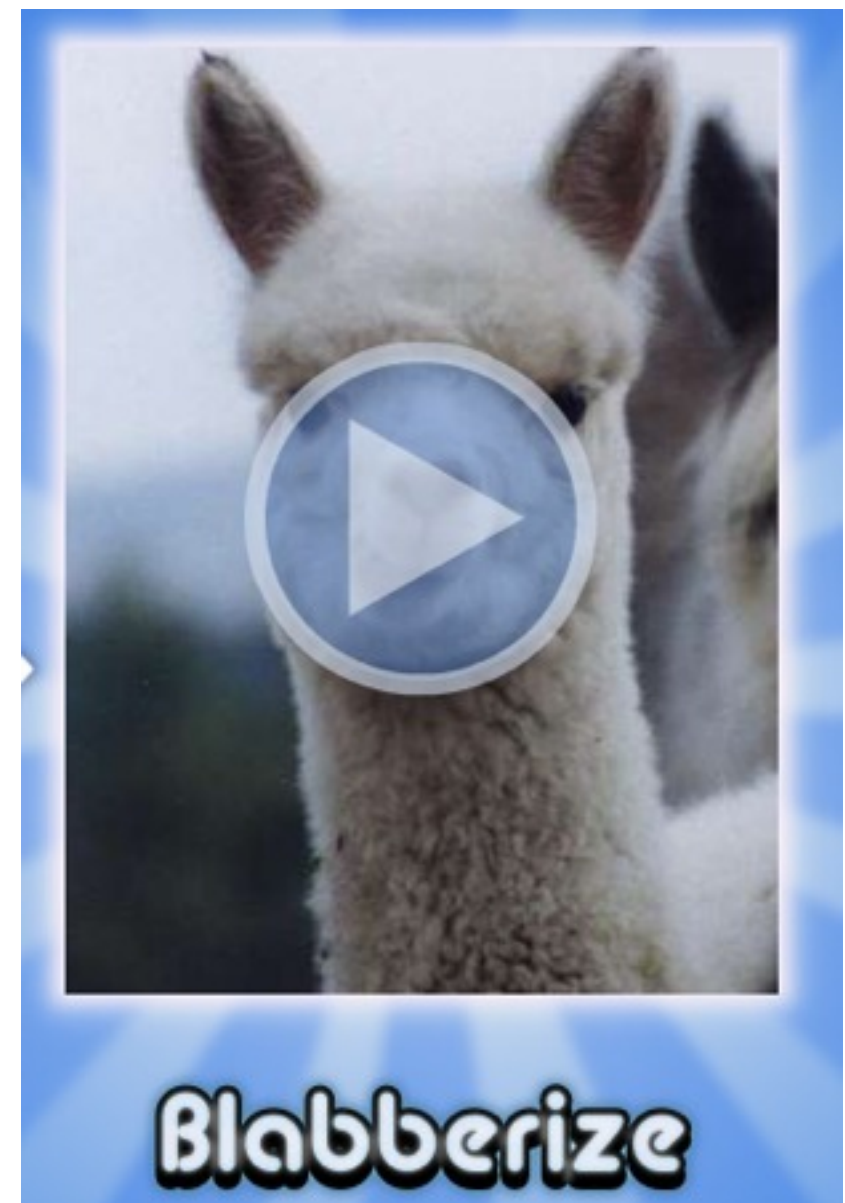
Simple Dictation in Google

- Add extension in Chrome store
- Click the microphone and record.
- Either cut and paste into document or email



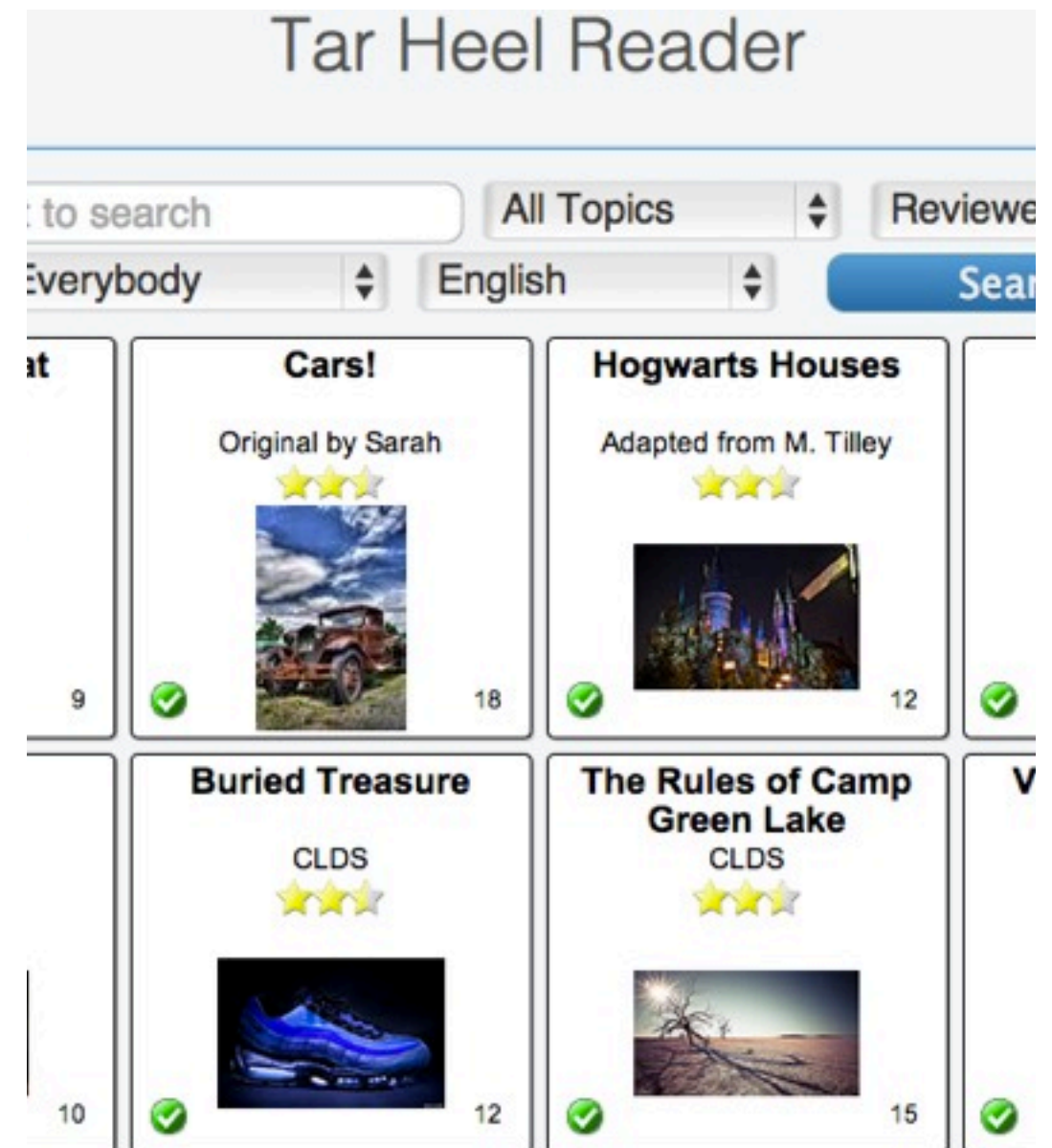
Blabberize.com

- Take photo
- Make it interactive
- Record what you have learned.



TarheelReader.org

- Author books online to be published
- Search books that other's have published
- University of North Carolina - Charlotte



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Engagement

Google Lit Trips

- [http://
www.googlelittrips.com/
GoogleLit/Home.html](http://www.googlelittrips.com/GoogleLit/Home.html)



Fake Face Book

- www.classtools.net/FB/home-page
- Create a Fake Facebook Page to demonstrate mastery of a topic
- Tutorial on website



Shmoop.com



- Free options:
Guides and
videos
- Premium
options: Test
Prep

Google Research

Click on Tools Then Research

The screenshot shows a Google Docs interface. The document title is 'Co-teaching Notes'. The menu bar includes File, Edit, View, Insert, Format, Tools, and Help. The 'Tools' menu is highlighted with a green arrow. The document content includes:

Co-Teaching: Critical Conversations to Build a Partnership

Quality co-teachers have a complete understanding of three components:

1. The students for whom they are responsible
2. The adults - the partners- with whom joint teaching is done
3. The professional practices in which they engage (curriculum, instruction, assessment and classroom culture)

The Student

More difficult in HS then Elementary due to teachers teaching only one or a few subjects, five to six class periods a day with 20 to 30 or more students per class

ALL teachers need to work intensely to find out as much as they can about their students

Two Teachers: Gaining knowledge about students' learning styles, academic assets and challenges, and personal traits easier and more efficient. Share data, observations and preferences. Use the information to plan, implement and evaluation lessons and coursework. More effective for differentiation of instruction, a more thoughtful groups of students and moves teachers from one-size-fits-all mentality. More complete knowledge equals a teacher that can supplement and enhance the academic content in any class.

The 'Research' sidebar on the right shows search results for 'co-teaching'. The results include:

- Web results**
- Co-Teaching: General and Special Education** - nichcy.org
- NEA - 6 Steps to Successful Co-Teaching** - www.nea.org
- What Is Co-Teaching? - Corwin** - www.corwin.com

WHAT IS DI?



Differentiated Instruction:
A Teaching Philosophy

Initiatives, Relationships, and the Role of Technology



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What is Differentiated Instruction?

“Differentiated Instruction is a **teaching philosophy** based on the premise **that teachers should adapt instruction to student differences**. Rather than marching students through the curriculum lockstep, **teachers should modify their instruction to meet students’ varying readiness levels, learning preferences, and interests**. Therefore, **the teacher proactively** plans a variety of ways to ‘get at’ and express learning.”

Carol Ann Tomlinson

Or more simply...

**Modifying
instruction in
light of
student
differences.**

Carol Ann Tomlinson



What can teachers differentiate?

- Content: A change in material presented.
- Process: A change in how material is practiced, leading to mastery.
- Product: A change in the final product: How the student shows what they've learned.

Carol Ann Tomlinson <http://www.readingrockets.org/article/263/>

UDL and DI: Similarities

UDL

- Multiple Means of Representation
- Multiple Means of Engagement
- Multiple Means of Expression

DI

- Content
- Process
- Product

UDL and DI: Differences

UDL

- Curricular focus
- Designed so that methods, materials, and assessment are useable by all.
- Technology is critical to successful implementation.

DI

- Classroom focus
- Meets each student where they are to assist in learning.
- Principles of DI support implementation of UDL
- Technology is traditionally not used.

http://www.donjohnston.com/research/articles/udl_diff_inst_cast.html

http://aim.cast.org/learn/historyarchive/backgroundpapers/differentiated_instruction_udl

UDL and DI

UDL's Goal

- Increase flexibility in teaching and decrease barriers that limit access to materials and learning at the curricular level.

DI's Goal

- Adjust the curriculum and information to meet the needs of a variety of learners in the classroom.

http://www.donjohnston.com/research/articles/udl_diff_inst_cast.html

http://aim.cast.org/learn/historyarchive/backgroundpapers/differentiated_instruction_udl

WHAT IF STUDENTS ARE STILL STRUGGLING?

Technology's role in a tiered
intervention system

Initiatives, Relationships, and the Role of Technology



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Initiatives, Relationships, and the Role of Technology

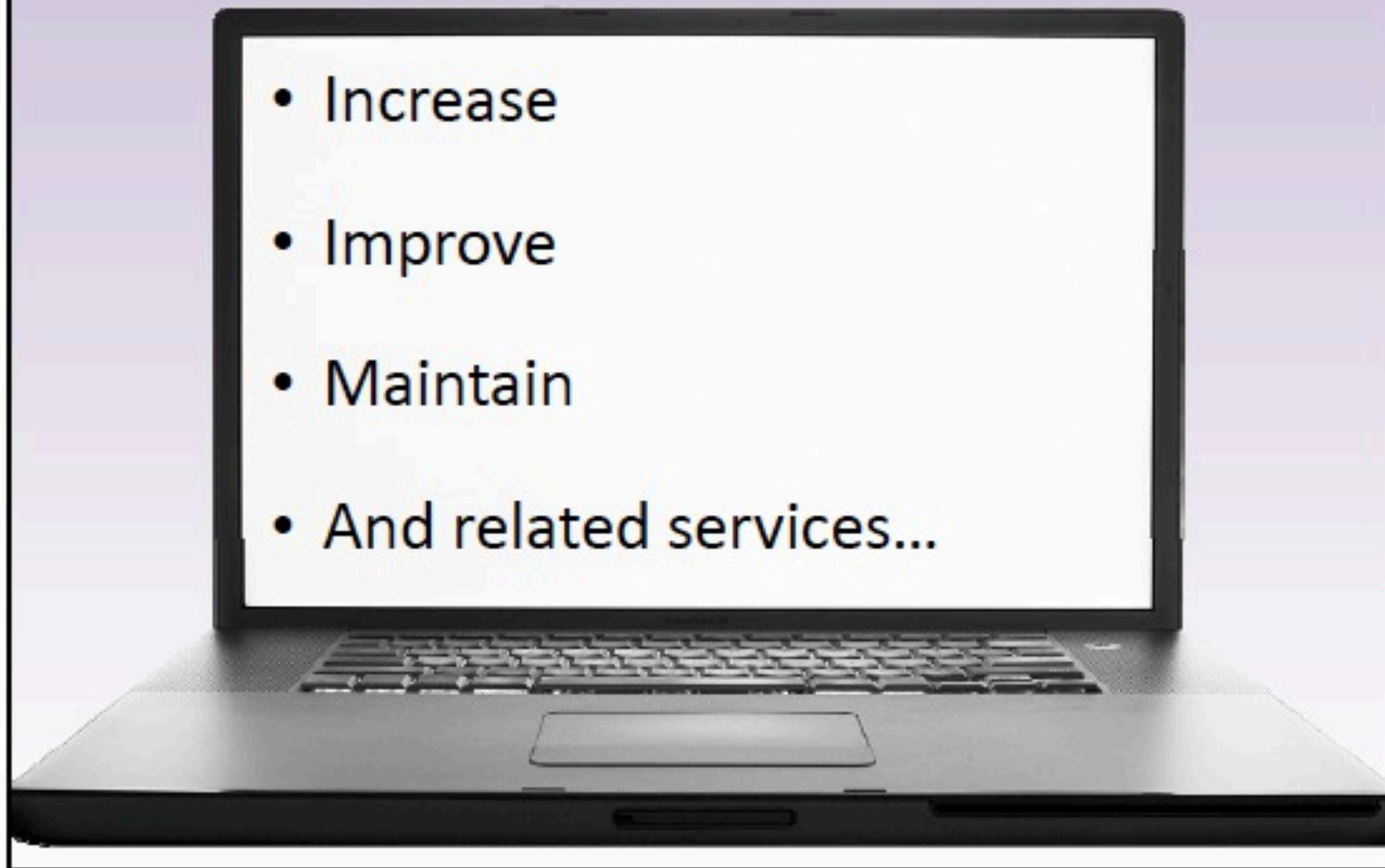


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ASSISTIVE TECHNOLOGY?

Assistive Technology is...

- Increase
- Improve
- Maintain
- And related services...



When does Technology become Assistive Technology?

- Technology used to help a student complete their academic tasks that they cannot currently complete, due to their disability.
- Increase, improve, or maintain functioning
- Documented in the IEP

A Fine Semantic (and Legal) Line

- Assistive Technology for one student may just be technology for another.



http://www.myinfinitec.org

The screenshot shows the homepage of the myinfinitec.org website. At the top, there is a search bar and buttons for "Search", "Sign Out", and "My Account". Below this is the Infinitec logo with the tagline "Infinite potential through assistive technology" and a background image of a smiling boy. A navigation menu includes links for Home, Resources, Online Classroom, Member Center, Services, Calendar, Downloads, and About Infinitec. The main content area is divided into three columns: "Quick Links" on the left, "Headlines" in the center, and "Upcoming Events" on the right. The "Quick Links" section features a "HELP!" sign icon and text about downloading PDF instructions and registering for an account. The "Headlines" section has an "RSS Feed" icon and two news items: "WELCOME BACK!" and "COMMONLY REQUIRED PRESENTATION - NEW ADDITION". The "Upcoming Events" section lists two events for October 21, 2011, for KS Regions 5 & 6.

Infinitec
Infinite potential through assistive technology

Search Sign Out My Account

Home Resources Online Classroom Member Center Services Calendar Downloads About Infinitec

Quick Links



Do you need help with the new site? Download the PDF instructions below.

[Register for an Account \(PDF\)](#)

Here are some quick video information links for new users.

Headlines  [RSS Feed](#)

WELCOME BACK!
As you may notice, things look a little different. We've undergone some changes and improvements. You can still access your favorite content and resources, but **FIRST** please re-register. Click the Register button in the top right corner of the screen.
If you have questions, resources to help you are under Quick Links to the left. Need more help? Does something not work as expected? Did you find a broken link? Contact infinitecwebupport@ucpsnet.org or give us a call at 703.644.6460, X 290.

COMMONLY REQUIRED PRESENTATION - NEW ADDITION
October 15, 2011, 10-11 AM CDT

Upcoming Events [View All](#)

Events

October 21, 2011
KS REGIONS 5 & 6
8:00 AM CDT - 12:00 PM CDT
KIC - Differentiating on a Dime: Managing and Designing DI

KS REGIONS 5 & 6
12:30 PM CDT - 3:30 PM CDT
KIC - Math Strategies and Beyond for Elementary and Secondary Students